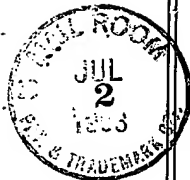


08/086976



## IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant: Constantin Bulucea and Rebecca Rossen  
 Assignee: Siliconix Incorporated  
 Title: TRENCH DMOS POWER TRANSISTOR WITH FIELD-SHAPING  
 BODY PROFILE AND THREE-DIMENSIONAL GEOMETRY  
 Serial No.: Filed: Herewith  
 Examiner: Group Art Unit:  
 Attorney Docket No.: M-799-2D-US

San Jose, California  
 July 2, 1993

COMMISSIONER OF PATENTS AND TRADEMARKS  
 Washington, D. C. 20231

Preliminary Amendment

Sir:

Please amend the above-mentioned Application as follows:

In the Claims

Please cancel Claims 1-16.

Please add Claims 17-29 as follows:

17. A trench DMOS transistor cell, comprising:
- a substrate of a first conductivity;
  - an epitaxial layer of said first conductivity formed on the surface of said substrate, said epitaxial layer having a top surface and a bottom surface;
  - a body region of a second conductivity formed in said epitaxial layer, said body region extending, as measured from said top surface of said epitaxial layer, to a first depth  $d_{max}$  at a first point and to a depth of  $d$  at a second point, where  $d$  is less than  $d_{max}$ , said first and second point being separated by a predetermined horizontal distance;
  - a source region of said first conductivity formed in said expitaxial layer above said body region; and

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